

WEST

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L6: Entry 4 of 7

File: DWPI

Jan 31, 2001

DERWENT-ACC-NO: 1998-560723

DERWENT-WEEK: 200108

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TITLE: Detecting gene of in vivo target protein of drug - comprises binding in vivo administered drug with antigenic substance via chemical crosslinker to give probe and directly screening gene of protein binding with probe

INVENTOR: HIDAKA, H; TANAKA, H

PATENT-ASSIGNEE:

ASSIGNEE	CODE
HIDAKA H	HIDAI

PRIORITY-DATA: 1997JP-0054661 (March 10, 1997), 1998WO-JP01712 (April 15, 1998), 1998EP-0914021 (April 15, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 1072688 A1	January 31, 2001	E	000	C12Q001/68
JP 10248571 A	September 22, 1998		004	C12N015/09
WO 9953094 A1	October 21, 1999	J	000	C12Q001/68

DESIGNATED-STATES: AT BE CH DE ES FR GB IT LI NL SE CA US AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
EP 1072688A1	April 15, 1998	1998EP-0914021	
EP 1072688A1	April 15, 1998	1998WO-JP01712	
EP 1072688A1		WO 9953094	Based on
JP 10248571A	March 10, 1997	1997JP-0054661	
WO 9953094A1	April 15, 1998	1998WO-JP01712	

INT-CL (IPC): C07D 213/42; C07H 21/04; C12N 15/09; C12Q 1/68; G01N 33/53; G01N 33/566; C12N 15/09; C12R 1/91

ABSTRACTED-PUB-NO: JP 10248571A

BASIC-ABSTRACT:

Detecting a gene of an in vivo target protein of a drug comprises binding an in vivo administered drug with an antigenic substance via a chemical crosslinker to give a probe and directly screening a gene of a protein binding with the probe using a cDNA expression library containing the administered in vivo gene.

The antigenic substance preferably comprises serum albumin or fluorescein

via a chemical crosslinker e.g. a group crosslinking functional groups of the drug and antigenic substance including glutaraldehyde, hexamethylene diisothiocyanate, N,N'-ethylene bismaleimide and bisdiazobenzidine to give a probe by stirring at room temperature in a solvent. The probe is used to directly screen a gene of protein binding with the probe.

ADVANTAGE - Direct and simple detection of a gene or a target molecule of a drug is effected without using a drug immobilising column. The method can identify a cellular factor such as a small amount of intranuclear transcription factor.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: DETECT GENE VIVO TARGET PROTEIN DRUG COMPRISE BIND VIVO ADMINISTER DRUG ANTIGEN SUBSTANCE CHEMICAL CROSSLINK PROBE SCREEN GENE PROTEIN BIND PROBE

DERWENT-CLASS: B03 B04 D16 S03

CPI-CODES: B04-B04C2; B04-E01; B04-E05; B04-E08; B04-J05; B04-N02; B07-D04; B11-C08E5; B12-K04A; D05-H09; D05-H12; D05-H12E;

EPI-CODES: S03-E14H4;

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1998-167998

Non-CPI Secondary Accession Numbers: N1998-437148

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L2: Entry 1 of 2

File: JPAB

Sep 22, 1998

PUB-NO: JP410248571A

DOCUMENT-IDENTIFIER: JP 10248571 A

TITLE: DETECTION OF GENE AS TARGET OF MEDICINE PROTEIN IN ORGANISM

PUBN-DATE: September 22, 1998

## INVENTOR-INFORMATION:

NAME

COUNTRY

TANAKA, HIDEKI

HIDAKA, HIROYOSHI

## ASSIGNEE-INFORMATION:

NAME

COUNTRY

HIDAKA HIROYOSHI

APPL-NO: JP09054661

APPL-DATE: March 10, 1997

INT-CL (IPC): C12N 15/09; C07H 21/04; C12Q 1/68; G01N 33/566; C07D 213/42

## ABSTRACT:

PROBLEM TO BE SOLVED: To directly detect a gene of a protein to which an administered medicine is bonded *in vivo*, by screening the gene using a specific substance containing a medicine in its molecule by a cDNA expression library containing an organism gene.

SOLUTION: A medicine is bonded through a chemical crosslinker to an antigenic substance such as serum albumin and is used as a probe. A gene of a protein bonded to the probe is directly screened by a cDNA expression library containing a number of species of genes of an organism (e.g. human) to whom the medicine is to be administered.

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isothiocyanate. The cDNA expression library uses a phage as a vector. The drug comprises non-protein substance without intrinsic antigenicity. A drug having no antigenicity or non-protein substance is bound with an antigenic substance via a chemical crosslinker e.g. a group crosslinking functional groups of the drug and antigenic substance including glutaraldehyde, hexamethylene diisothiocyanate, N,N'-ethylene bismaleimide and bisdiazobenzidine to give a probe by stirring at room temperature in a solvent. The probe is used to directly screen a gene of protein binding with the probe.

ADVANTAGE - Direct and simple detection of a gene of a target molecule of a drug is effected without using a drug immobilising column. The method can identify a cellular factor such as a small amount of intranuclear transcription factor.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: DETECT GENE VIVO TARGET PROTEIN DRUG COMPRISE BIND VIVO ADMINISTER DRUG ANTIGEN SUBSTANCE CHEMICAL CROSSLINK PROBE SCREEN GENE PROTEIN BIND PROBE

DERWENT-CLASS: B03 B04 D16 S03

CPI-CODES: B04-B04C2; B04-E01; B04-E05; B04-E08; B04-J05; B04-N02; B07-D04; B11-C08E5; B12-K04A; D05-H09; D05-H12; D05-H12E;

EPI-CODES: S03-E14H4;

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1998-167998

Non-CPI Secondary Accession Numbers: N1998-437148

**WEST**
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L2: Entry 2 of 2

File: DWPI

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DERWENT-ACC-NO: 1998-560723

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